

The HPMC-005A, is a UHF 8 way multi-coupler. It is a high isolation solution for coupling up to 8 V/UHF receivers to a single antenna. Its main application is for UHF Radio Microphone. The unit is provided in a 19" 1U high rack mounted case. Health monitoring is provided. Local LED indicates 'STATUS', an opto-coupler output allows remote indication of 'STATUS'. Lighting protection is incorporated.

Redundant PSU is available through external DC supply.



Specification:

Parameter

Limits

(NB: All unused ports should be terminated in 75 Ohms)

Freq:	500-860Mhz
Gain:	1.5dB nominal
Gain Variation:	+/- 1.0dB max
Noise Figure:	6.5dB max. (typ 6.0dB)
Number of inputs:	1
Number of outputs:	8
Output Intercept (OPIP):-	

Measured at 2 tones -10dBm,

3rd Order >+23dBm min . (typ +25dBm)
 2nd order >+35dBm min. (typ +40dBm)

P1dB o/p	> +5dBm
VSWR input 75Ohm:	2.0:1 max. (Return Loss >10dB)
VSWR output 75Ohm	2.0:1 max. (Return Loss >10dB)
Isolation - Output to output:	>20dB min
Output to input:	>25dB min
Max. input signal CW	20dBm cont.

Power: OPT1. Mains 115/230V, set internally, max power 10W
 OPT2. DC 24V.

Alarms/Protection CCT

Alarms – The multicoupler has a 'on board' health monitoring circuit which monitors the operation of the active amplifier. Should a fault occur the 'Status' LED on the front panel will change from 'Green' to 'Red'.

and an opto-coupler (transistor) is activated to provide remote alarm operation. The remote alarm pins are available on the rear panel (mini fit jnr) connector.

Mechanical

Connectors i/p and o/p	RF BNC Female sockets
Dimensions:	Power/Alarm DC connector is Molex 4W, Mini fit Jr. 19", 1U rack mount,

Colour – Front panel is Black and the rest of the case is Natural Aluminium.

Environmental

Temp range:	operating: -10C to +55C storage: -20C to +70C
Humidity	5% to 95% (Non condensing)
MTBF	>75,000hrs (25Deg C, Ground Benign, MIL-HDBK-217F)

Cooling Case is vented top and bottom

Options: - The complete part number is made as follows:-

HPMC-005A/(PSU)/(DC)/1U

HPMC-001A – The core specified Multicoupler

PSU - Mains PSU – uses a low noise switch mode type, 115-230VAC

DC – Allows external powering via a DC source. Eg DC24 = 24 DC external power.

1U – The whole package is in a 1U chassis.

Note when AC and DC are both specified AC is the master supply and the DC is the secondary supply. An internal relay switches between the two.